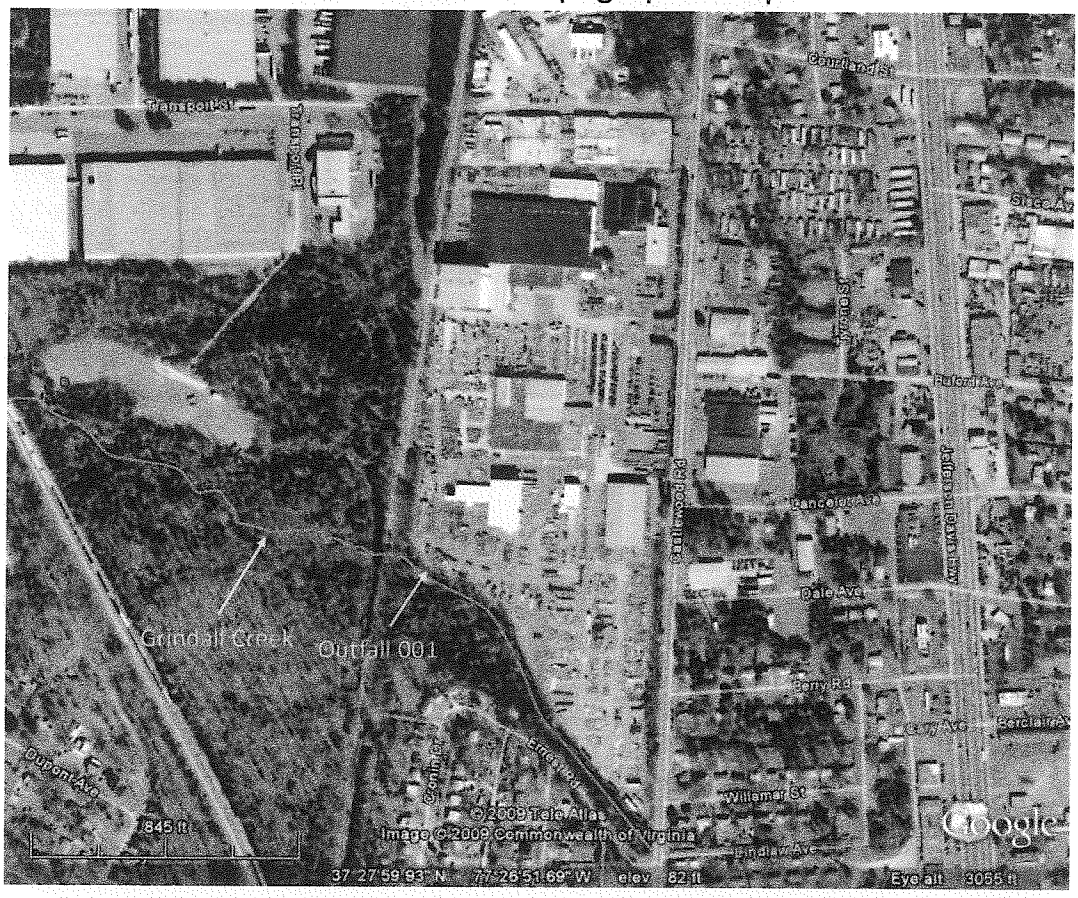
Attachment A

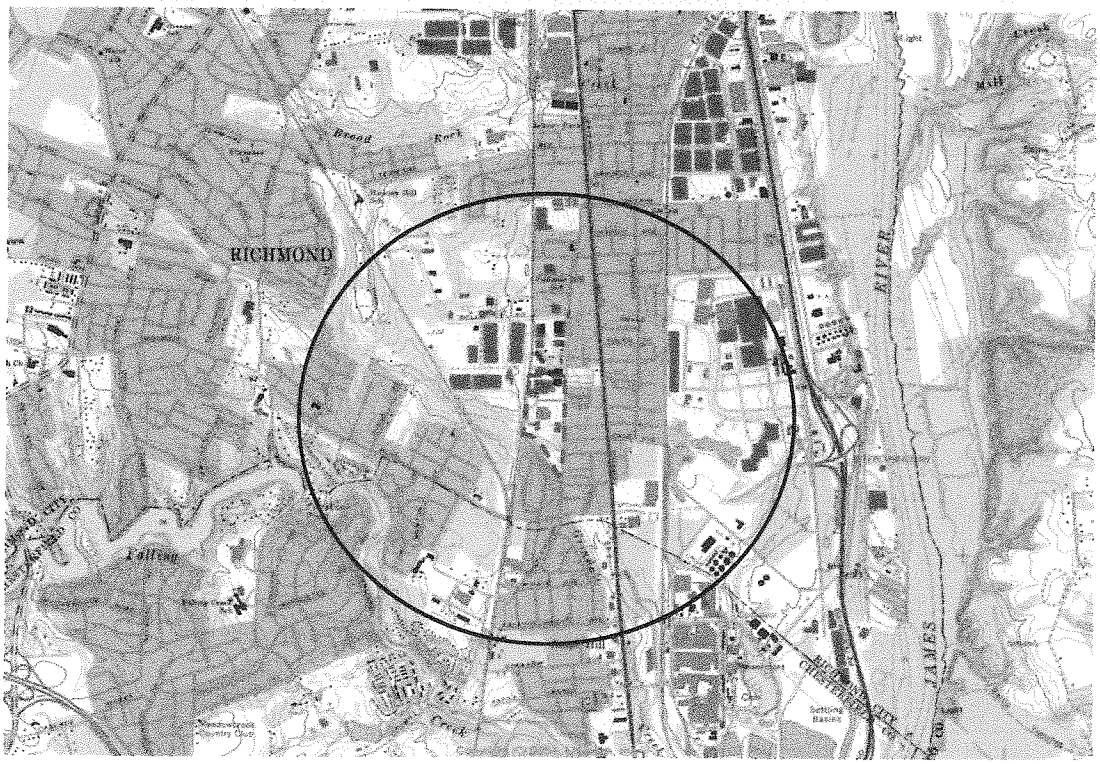
Site and Stormwater Drainage Areas Maps

Dominion – Materials and Metering Services Center
Aerial Photo and Topographic Map

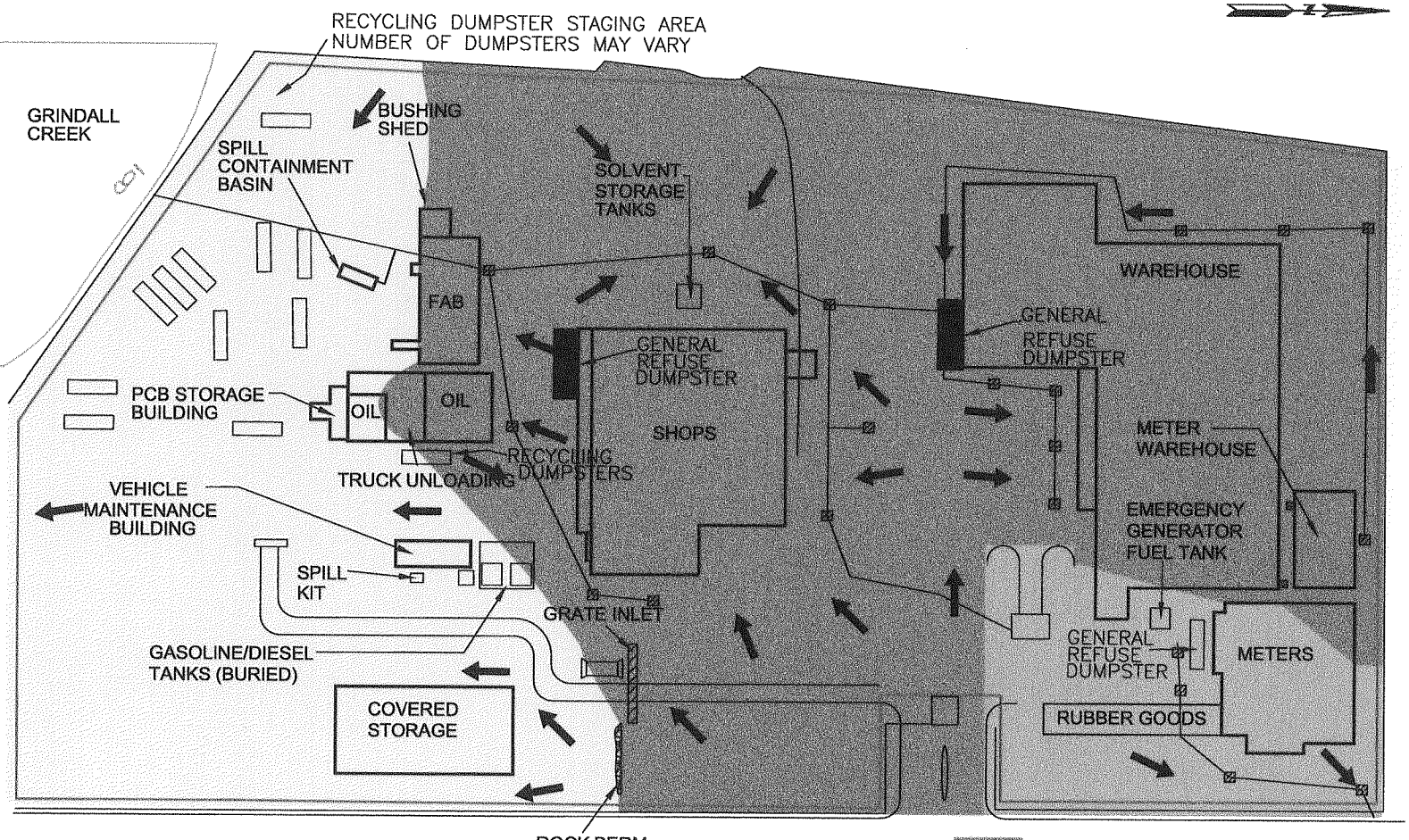


Approximate Property Boundary

Approximate 1 Mile Radius



USGS Topographic Map
Drewry's Bluff Quadrangle
Map Scale 1:24,000
1" ~ 0.50 miles



LEGEND:

- ELECTRICAL EQUIPMENT STORAGE
- DIRECTION OF SURFACE DRAINAGE
- STORM DRAIN INLET
- STORM SEWER

The facility is permitted under the above referenced permit in Part I.B.1, page 5 of 6, for the following "Allowable Nonstorm Water Discharges". Identify your location on the map for possible location of where the discharge may occur

- Discharge from fire fighting activities;
- Fire Hydrant Flushing
- Potable hydrant flushings;
- Uncontaminated air conditioning or compressor condensate;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
- Routine external building wash down which does not use detergents;
- Pavement wash water where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled materials has been removed);
- Uncontaminated ground water or spring water;
- Foundation or footing where flows are not contaminated with process materials such as solvents;
- Incidental windblown mist from cooling towers that collects from rooftops or adjacent portions of the facility, but not intentional discharge from the cooling tower (e.g. "piped" cooling tower blowdown or drains).

OUTFALL 001 DRAINAGE (21.2 ACRES)
DRAINAGE TO CITY OF RICHMOND (3.35 ACRES
SHEET FLOW (11.95 ACRES)

0 50 100 200 300
SCALE IN FEET

S:\INNSBROOK\3\Data4\epccommo\EES_ELECTRONIC_FILING_SYSTEM\Water--Waste Files\Castlewood\RAW Drafts Castlewood Rd\SWPPP\Drawings\201622 SW Drainage Map -- CA.dwg

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:

DESIGNED BY: X
DRAWN BY: KLP
CHECKED BY: X
APPROVED BY: X

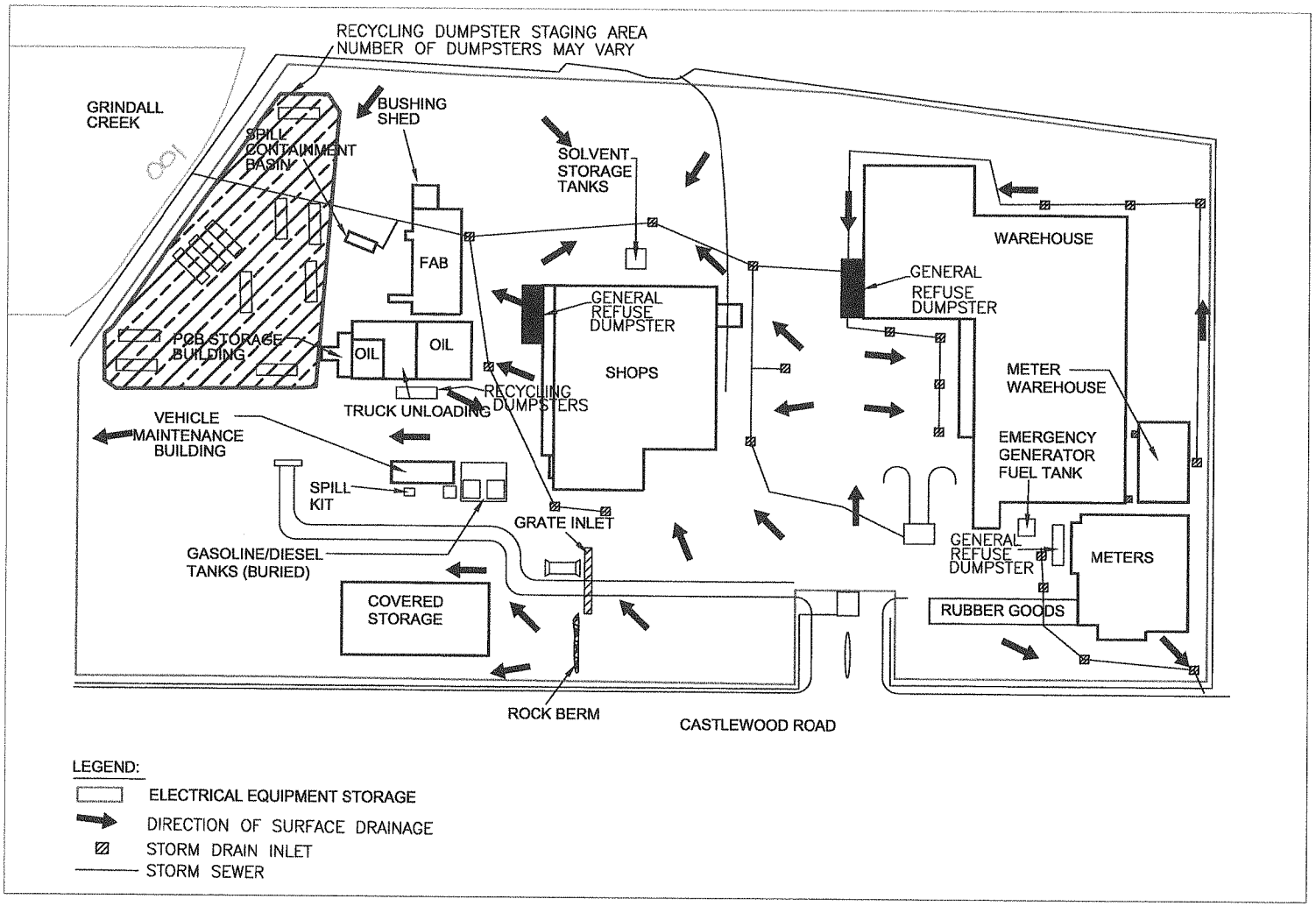
AECOM
444 LIBERTY AVENUE
PITTSBURGH, PENNSYLVANIA
PHONE: (412) 395-3910
FAX: (412) 765-1421

#622 Storm Water Drainage
Castlewood Road Facility
Castlewood Road
Richmond, Virginia

SCALE: AS NOTED
DATE: 12/21/09
PROJECT NUMBER: 60144653

FIGURE NUMBER: 4

SHEET NUMBER: 1 OF 1


RECYCLING DUMPSTER STAGING AREA
NUMBER OF DUMPSTERS MAY VARY
GRINDALL CREEK
BUSHING SHED
SPILL CONTAINMENT BASIN
SOLVENT STORAGE TANKS
FAB
WAREHOUSE
GENERAL REFUSE DUMPSTER
GENERAL REFUSE DUMPSTER
POB STORAGE BUILDING
OIL
OIL
SHOPS
METER WAREHOUSE
RECYCLING DUMPSTERS
TRUCK UNLOADING
VEHICLE MAINTENANCE BUILDING
EMERGENCY GENERATOR FUEL TANK
SPILL KIT
GRATE INLET
GENERAL REFUSE DUMPSTER
METERS
GASOLINE/DIESEL TANKS (BURIED)
COVERED STORAGE
RUBBER GOODS
ROCK BERM
CASTLEWOOD ROAD
LEGEND:
ELECTRICAL EQUIPMENT STORAGE
DIRECTION OF SURFACE DRAINAGE
STORM DRAIN INLET
STORM SEWER

Attachment B

Drainage Areas Description

Addendum
Dominion-Materials & Metering Services Center
VPDES Permit Application

FORM 2F

Item IV.B Narrative Description of Significant Materials

General

Virginia Power's Materials and Metering Services Center is located on an approximate 36 acre parcel, the majority of which is covered with buildings and asphalt or concrete surfacing. Characterization of storm water drainage areas within the facility was accomplished through the combined efforts of facility personnel and Electric Environmental Services Department staffs to ensure a comprehensive evaluation of potential impacts to storm water discharges. Delineation of drainage areas was accomplished by our consultant AECOM (see Figure 4). Evaluation of industrial activities in each drainage area, and determination of the potential for contamination of storm water runoff, was accomplished by compilation of information from records, facility drawings, knowledge of site personnel, with verification by field inspection.

Operations at the Materials and Metering Services facility include storing, repairing, and/or recycling of electrical equipment and associated materials used for the construction, operation and maintenance of Virginia Power's electrical distribution system. A narrative description of potential sources of pollutants including fueling stations, vehicle and equipment maintenance/or cleaning areas, loading and unloading areas, locations used for waste processing, storage or disposal and liquid storage tanks is provided below. The descriptions are broken down by facility drainage areas.

DRAINAGE AREA #1

Drainage Area #1 is approximately 21.2 acres. Generally, storm runoff associated with site areas north of the oil storage, vehicle maintenance, and covered material storage (BM shed) area (i.e., drainage from approximately two thirds of the site), is directed to drop inlets that feed to the Spill Prevention Control and Countermeasure (SPCC) containment basin located south of the yard office building. Under normal operating conditions, storm water from this area bypasses the containment system and is directed to Outfall 001, which discharges to Grindall Creek southwest of the yard office building. A diversion box at the containment basin is equipped with oil sensors. In the event the sensors detect oil, a valve in the diversion box is automatically opened and flow is directed to the containment basin so that no discharge is directed to Outfall 001 (see Figure D-2). A spill kits containing absorbents, booms, drain covers, etc. are located strategically near storm water drain inlets for rapid response.

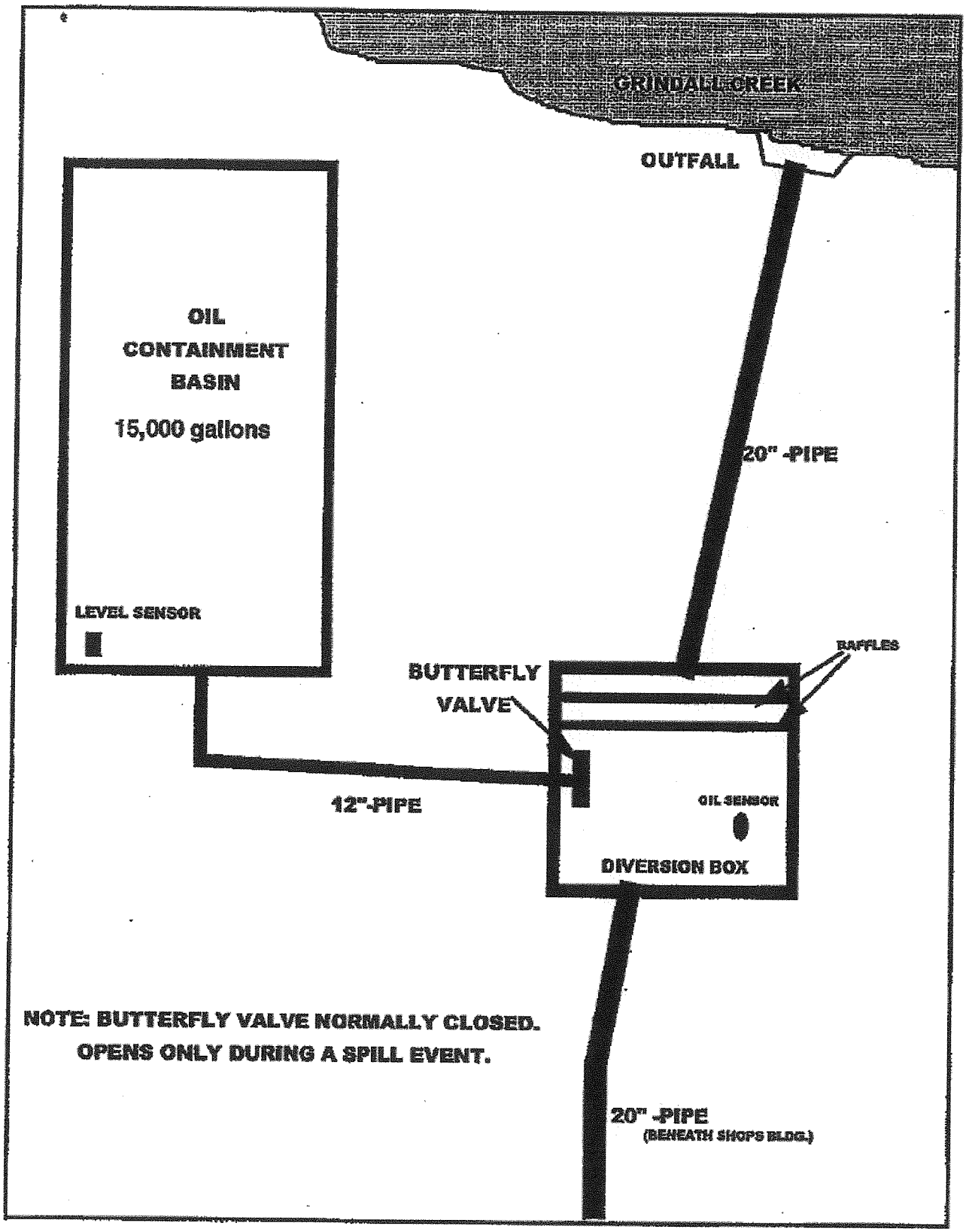


FIGURE D-2 PLAN VIEW OF SPCC CONTAINMENT BASIN

Loading and Unloading Areas

A central receiving area is located under roof on the east side of the shops building. Much of the waste material and damaged equipment that enters the facility is initially processed through this area. Waste materials typically unloaded and loaded in these areas include 55 gallon drums of PCB solids and liquids, 55 gallon drums of Non-PCB oil and oily solids, damaged or unusable oil-filled electrical equipment, lead acid batteries and other miscellaneous materials. Covered loading docks are located on the south sides of the shops building, the central warehouse, and the meter building. Uncovered loading/unloading docks (truck ramps) are located just west of the main entrance and south of the central warehouse. Electrical equipment (e.g., new transformers) containing transformer oil (dielectric fluid or mineral oil) may be loaded or unloaded at this ramp. Any storm water drainage from the ramp is directed to the SPCC containment basin. Detailed procedures for receiving and handling of incoming and outgoing waste materials and equipment have been developed by facility environmental personnel, and are incorporated by reference into this plan. Trained site personnel perform all loading and unloading activities. Loading and unloading areas are routinely inspected during environmental surveys.

Shops Building

Transformers in need of repair or refurbishing are worked in the shops building, which is centrally located within the facility. All activity associated with the reworking of transformers takes place inside the shops building. Associated with the shops building is the central receiving area, as described above, a painting area including a sandblasting pit and paint booth, and oil transfer pumps which are used to transfer various types of oil via aboveground pipelines to and from aboveground storage tanks (ASTs) located in the oil storage building. All repair work is performed indoors; however, some resulting waste products (e.g., paint waste) are handled as hazardous waste and are stored in the hazardous waste accumulation area (the satellite accumulation area is in the paint booth). Floor drains within this building have been plugged, and work areas where the transformers are drained, rinsed, and filled have either containment measures or are sufficiently remote from building exits that spills can be easily contained.

Central Warehouse and High Rise Storage Building

Miscellaneous stocked materials associated with the construction, operation and maintenance of the Company's electric distribution system are stored inside the central warehouse building. New oil-filled transformers are stored in the high rise storage building. These building are located on the northern portion of the facility. Any spilled oil which might escape these buildings would be directed to the SPCC containment basin.

Outdoor Storage Areas

Equipment Storage - Oil-filled electrical equipment either in stock or awaiting repair is stored outdoors on pallets in the asphalt-surfaced areas. Outdoor storage areas are checked weekly for leaking equipment and spills, in accordance with the facility's SPCC plan. The employees who work with the associated SPCC items are trained annually in spill prevention and response procedures.

Hazardous Waste Satellite Accumulation Area - Paint Waste, generated as a result of repair activities in the shops building, is stored in closed 55 gallon drums with lids in the satellite accumulation area (paint booth). When full, the drums are moved to the hazardous waste storage area near the PCB storage building. This area is inspected weekly for leaks and/or spills. A spill response kit is located near the storage area.

DRAINAGE AREA #2

Drainage Area #2 is approximately 11.95 acres. Storm drainage from Drainage Area #2, with the exception of that associated with truck ramp B as detailed below, moves by sheet flow to the southeastern corner of the facility, and ultimately enters Grindall Creek.

Loading and Unloading Areas

Uncovered loading/unloading docks (truck ramps) are located on the southwest corner of the covered storage building (Area 2 – ramp A); and next to the busing rack south of the vehicle maintenance shop (Area 2 – ramp B). Precipitation which enters truck ramp B is collected in a grated drain extending the width of the western end of the ramp. A concrete pipe channels runoff from the drain to a grassy swale, located near the perimeter fence due south of the truck ramp, and ultimately to Grindall Creek. The truck ramp drain is equipped with an inflatable plug, which is manually inflated during periods when loading or unloading activities are occurring. Detailed procedures for receiving and handling of incoming and outgoing waste materials and equipment have been developed by facility environmental personnel. Trained site personnel perform all loading and unloading activities.

Vehicle Maintenance Building

A vehicle maintenance building is located south of the shops building and east of the oil storage building. All vehicle maintenance activities are performed under roof. In addition, waste motor oil generated as a result of vehicle servicing is collected and burned for heat in a furnace located within the shop.

Fueling Station

A vehicle fueling area is located just north of the vehicle maintenance shop. Vehicles are fueled with gasoline or diesel fuel contained in two in 20,000 gallon USTs. A spill kit is located at the fueling area.

Covered Storage Area or Binstock Material (Commonly Called "BM Shed")

This covered area is primarily used for the storage of miscellaneous stock materials and is located to the west of the vehicle maintenance building. Unusable lead acid batteries received at the facility are properly packaged and placed in the BM shed to await transport for off-site recycling or disposal by a contractor. Petroleum contaminated materials and debris received at the facility in 55 gallon drums for disposal are processed by removing free product then placing

the materials in hoppers, which are then stored in the BM shed. When a sufficient quantity of petroleum contaminated debris is accumulated, it is properly disposed off-site by a contractor.

Yard Office and Oil Storage Building

The yard office and oil storage building are located to the east of the vehicle maintenance building. The eastern end of the yard office contains an area used for the repair of oil-filled bushings. These bushings contain relatively small amounts of Non-PCB and PCB-Contaminated mineral oil. All repair work is conducted within the confines of the building. The oil storage building houses the tank farm consisting of twenty-one above ground storage tanks (ASTs) ranging in size from 5,000 to 20,000 gallons, with a total storage capacity of 233,000 gallons. All tanks are located inside the building and have containment areas designed to contain 125% of the largest capacity tank. Oil stored in the 21 ASTs is segregated as follows:

- New transformer oil
- Used transformer oil to be reclaimed (streamlined)
- Reclaimed transformer oil to be reused
- Non-PCB scrap transformer oil
- Scrap transformer oil suspected of being PCB contaminated
- Scrap oil pumped from the shops building
- Oil/water mixtures
- PCB oil

Oil (new, scrap, or used to be reclaimed) is delivered to or shipped from the site in 350-gallon double walled totes, 55 gallon drums or by tank truck. Transfer to and from ASTs is accomplished via pumps in loading/unloading bay for the oil storage building. The concrete floor of the bay is sloped so that any spills from loading/unloading operations are directed to a sump which drains into one of the tank containment areas.

EPA-Permitted PCB Storage Building

PCB equipment and 55 gallon drums of PCB materials received from field locations for disposal are stored in the PCB Storage Building, located on the south side of the oil storage building. This storage area conforms with 40CFR 761.65(b)(1).

Outdoor Storage Areas

The outdoor storage areas indicated below are routinely inspected to ensure that drums and equipment that could leak oil or other contaminates are intact and remain sealed. If leaks are detected they are expeditiously cleaned up and the leaking item relocated to an area that affords containment until the item can be repaired, repackaged or transferred to a non-leaking container.

PCB Temporary Retention Area – PCB equipment and 55 gallon drums of PCB materials are temporarily stored in a designated area outdoors behind the PCB storage building.

This material and equipment must be processed and placed inside the PCB Storage Building within 30 days from the date the items were removed from service.

Non-PCB Oil Contaminated Debris Storage Area - The non-PCB petroleum contaminated storage area is located on the south side of the yard office building. Detailed procedures for processing the debris following receipt have been developed by Materials and Metering Services environmental personnel. Stored within the area are 55-gallon drums containing oil-contaminated debris awaiting processing for disposal. Also stored within the area are 55 gallon drums containing used oil filters, fuel filters, and transmission filters, which are periodically picked-up by a contractor for recycling.

Drained Transformers – Transformers which have been drained and designated for resale or scrapping are stored in an asphalt-covered area south and east of the vehicle repair shop, and south of the PCB shed.

Substation Transformer Bushing Rack – Various sizes of oil-filled bushings in storage for reuse are located in an asphalt covered area southeast of the vehicle maintenance building and the oil storage building.

Oil and Oil/Water Mixtures – 350-gallon double walled totes and 55 gallon drums of non-PCB oil, PCB Contaminated oil and oil/water mixtures that arrive on-site are immediately pumped to ASTs in the oil storage building.

Hazardous Waste Storage Area – Hazardous waste generated at the facility is stored in closed 55 gallon drums. The drums are stored in a portable covered secondary containment device which is located near the PCB storage shed. Hazardous waste generated by the facility consists primarily of paint wastes from painting operations in the shops building. Site environmental personnel have developed written procedures for the handling and storage of hazardous wastes at the facility.

Miscellaneous Equipment, Wire, and Galvanized Equipment – The southeastern areas of the facility are used for the storage of various materials and equipment both in stock for use or in storage for ultimate recycling or disposal, and in the areas south of the rubber goods building and general warehouse.

DRAINAGE AREA #3

Drainage Area #3 is approximately 3.35 acres and is located at the northeast corner of the property. Drainage from this area is directed off-site to the City of Richmond storm drainage system.

Meter Building

Electrical meters are serviced in the meter building located at the northeast comer of the facility. All repair work is performed indoors.

Emergency Generator Fuel Tank

A 1,500 gallon UST containing diesel fuel for the emergency generator is located east of the warehouse. A spill kit is located near the fueling area. Fuel transfers are always manned.

Outdoor Storage

Various types of non-liquid filled metering equipment are stored in areas adjacent to the meter building.

ITEM VII. Discharge Information

Parts A, B, C, & D

Data used to complete this section of Form 2F were generated in accordance with Dominion's data generation strategy, which was submitted to DEQ by letter dated December 4, 2014 (included with this application) and was approved by Ms. Laura Galli on January 13, 2015 (also included with this application).

DMR Parameters pH, COD, TPH, and Flow

For pH, COD, TPH, and flow, discharge monitoring data generated during the period May 4, 2011 through December 16, 2014 were used to generate the maximum and average values reported in Part A.

DMR Parameters TSS, Total Copper and Zinc

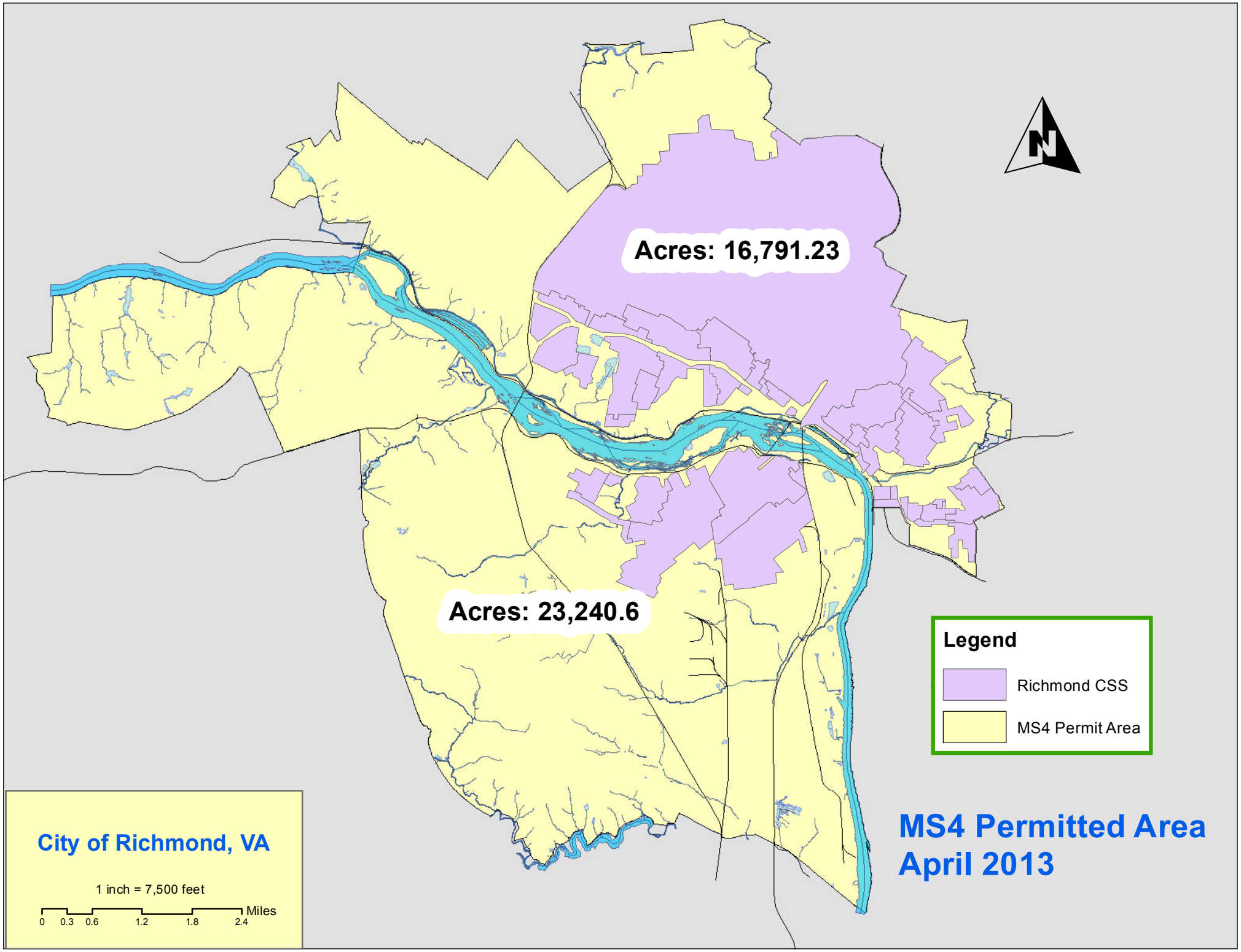
Total Suspended Solids (TSS), Total and dissolved copper and zinc data generated during the period from May 4, 2011 through March 11, 2015 were used to produce the maximum and average values reported in Part C.

Remainder of parameters reported on Form 2F

The remaining data submitted with this application were generated using grab samples of the effluent from Outfall 001 that were collected on March 11, 2015.

Item IV. Part B.

In addition to the analytical results presented in Item VII Parts A, B, and C, this facility submits a annual SARA Tier II report which identify the significant materials stored onsite. Copies of the past three year's SARA reports are included in this permit's application as an part of the addendum.


Acres: 16,791.23
Acres: 23,240.6
Legend
Richmond CSS
MS4 Permit Area
City of Richmond, VA
1 inch = 7,500 feet
0 0.3 0.6 1.2 1.8 2.4 Miles
MS4 Permitted Area
April 2013

Attachment C

Flow Frequency Memorandum

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY
Piedmont Regional Office
4949-A Cox Road Glen Allen, Virginia 23060

SUBJECT: Flow Frequency Determination
Dominion - Materials and Metering Services Center – VA0087734

TO: Laura Galli

FROM: Jennifer Palmore, P.G.

DATE: May 22, 2015

COPIES: File

The Dominion - Materials and Metering Services Center discharges stormwater to Grindall Creek in Richmond, VA. The outfall is located at rivermile 2-GRK002.37. Flow frequencies have been requested for use in developing effluent limitations for the VPDES permit.

The flow frequencies were developed based on a drainage area comparison between the discharge point and the previously-operated USGS continuous record gage on Falling Creek near Chesterfield, VA (#02038000). The gage was located near Route 651 (Belmont Road.) The data for the reference gage and the discharge point are presented below.

Falling Creek near Chesterfield, VA (#02038000):
Drainage area: 32.8 mi^2
Statistical period: 1955-1994
High Flow Months: January to April

1Q30 – 0.12 cfs	High Flow 1Q10 = 5.2 cfs
1Q10 = 0.42 cfs	High Flow 7Q10 = 6.3 cfs
7Q10 = 0.50 cfs	High Flow 30Q10 = 11 cfs
30Q10 = 0.73 cfs	HM = 3.9 cfs
30Q5 = 1.5 cfs	

Grindall Creek at outfall 001:
Drainage Area: 2.13 mi^2

1Q30 = 0.0078 cfs (0.0050 MGD)	High Flow 1Q10 = 0.34 cfs (0.22 MGD)
1Q10 = 0.027 cfs (0.018 MGD)	High Flow 7Q10 = 0.41 cfs (0.26 MGD)
7Q10 = 0.032 cfs (0.021 MGD)	High Flow 30Q10 = 0.71 cfs (0.46 MGD)
30Q10 = 0.047 cfs (0.031 MGD)	HM = 0.25 cfs (0.16 MGD)
30Q5 = 0.10 cfs (0.063 MGD)	

During the 2012 and draft 2014 305(b)/303(d) Water Quality Integrated Water Quality Assessments, Grindall Creek was considered a Category 2B water ("Waters are of concern to the state but no Water Quality Standard exists for a specific pollutant, or the water exceeds a state screening value or toxicity test.") The Fish Consumption Use was assessed as fully supporting with observed effects due to a VDH advisory for kepone and due to PCBs in the water column. The Aquatic Life and Wildlife Uses were fully supporting. The Recreation Use was not assessed.

Flow Frequency Determination
VA0087734
May 21, 2015

Grindall Creek has historically been considered a Tier 1 water due to the existence of discharges to the creek where water quality is expected to be maintained at the level of the Water Quality Standards. Review of water quality from station 2-GRK001.73 confirms that Tier 1 remains appropriate.

Water quality data has been collected on Grindall Creek at Walmsley Boulevard, which is 0.5 mile downstream from the discharge. Unfortunately, there is a large time lapse between historic sampling and current sampling. A review of the data gives a reason to believe that the historic water quality may not be representative of current conditions; however, there is not enough current data to have a strong analysis. Therefore, I would recommend using water quality data from monitoring station 2-GOD000.77, which is attached. The station is located on Goode Creek at Commerce Road and is located within the same watershed as the discharge. During the next permit reissuance, the data pool from Grindall Creek should be sufficient.

The facility was included in the James River and Tributaries – City of Richmond Bacterial TMDL, which was approved by the EPA on 11/4/2010 and by the SWCB on 6/29/2012. The discharge was modeled but was not assigned an E. coli wasteload allocation because it is not permitted for fecal bacteria control.

The Dominion - Materials and Metering Service Center was also addressed in the Chesapeake Bay TMDL, which was approved by the EPA on 12/29/2010. The TMDL allocates loads for total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) to protect the dissolved oxygen and SAV criteria in the Chesapeake Bay and its tidal tributaries. The discharge was included in the aggregated loads for non-significant wastewater dischargers in the upper James River tidal freshwater estuary (JMSTF2). The nutrient allocations are administered through the Watershed Nutrient General Permit; the TSS allocations are considered aggregated and facilities with technology-based TSS limits are considered to be in conformance with the TMDL.

If you have any questions concerning this analysis, or need any additional information, please do not hesitate to ask.

Attachment D

Site Inspection and Site Visit

MEMORANDUM
DEPARTMENT OF ENVIRONMENTAL QUALITY
Piedmont Regional Office

4949-A Cox Road **Glen Allen, VA 23060** **804/527-5072**

SUBJECT: **Dominion Materials and Metering Services Center, VA0087734**

TO: **File**

FROM: **Laura Galli, VPDES Permit Writer**

DATE: **June 12, 2015**

On June 10, 2015, Laura Galli and Deborah DeBiasi of DEQ met with Ken Roller and Dan Moyers of Dominion for a site visit. This facility is the materials and metering service center for Dominion Power. Operations on the site include storing, testing, repairing, dismantling and recycling electrical equipment and materials used by the Delivery and Transmission divisions. Equipment handled on site ranges from new and used transmission cable, substation hardware and mobile substations to transformers and used oil in tankers. The Permit allows for the discharge of stormwater to Grindall Creek.

Following a meeting to discuss the current conditions at the site and issues concerning WET Test results and concentrations of copper and zinc in the stormwater exceeding the screening criteria, a walkthrough of the facility was performed. The scope of the site visit was to observe the general conditions and BMPs at the site, and to identify potential sources of copper and zinc that could affect their concentrations in the stormwater runoff. The site is divided into three general areas: the upper yard (drainage area 1), where stormwater discharges to outfall 001 through a series of stormwater drain inlets and a spill collection system; the lower yard (drainage area 2), where stormwater discharges to Grindall Creek as a sheet flow; the northeast corner (drainage area 3), where stormwater discharges through the City of Richmond storm sewer.

The walkthrough started at drainage area 1, where tankers, new transformers and old transformers to be recycled are stored throughout (photos 1 and 2). Drop inlets, present throughout the paved yard divertstorm water through the spill containment area. The system warehouse is used for equipment storage. Mineral oil trucks are also parked in the upper yard. The yard area appeared very clean, and no oil stains or other evidence of recent spills were observed. Spill kits are located around the yard (photo 3). Limestone was observed at two storm drainage inlets; the material is placed as part of best management practices to help reduce the contaminants concentration in the stormwater (photo 4).

The lower yard (Drainage Area 2) is on a down grade slope toward the creek. The vehicle maintenance shop, fueling station, oil storage building, PCB shed (photo 5), empty drums, and scrap metal dumpsters (photo 6) are located on this portion of the site. There is one stormwater conveyance from Truck Ramp B to the grassy swale located towards the south side of the property. The storm drain at Truck Ramp B is equipped with a plug that is inflated during periods when loading and unloading is occurring. This yard also appeared to be very clean.

The northeast corner of the yard (drainage area 3) drains to the City of Richmond storm sewer. This area includes the rubber goods area and the laboratory building, but was not observed during the site visit.

The location of Outfall 001 was also observed. A small flow of clear stormwater was observed discharging (photo 7). The samples are collected directly at the pipe before stormwater enters the creek.

The site was observed to be very clean and organized, and no defined areas were identified as potential sources of high concentrations of copper and zinc in the runoff. DEQ recommended the continued use of crushed limestone around the two stormwater drainage inlets, together with continued semiannual monitoring to observe the efficacy of the limestone in the reduction of metals concentration and toxicity.

Photo 1: Old transformers stored for recycling.

Photo 2: Old and new transformers

Photo 3: Oil Spill Kit

Photo 4: Crush limestone around stormwater inlet

Photo 5: PCB storage area

Photo 6: Scrap metal dumpsters

Photo 7: Crushed limestone around stormwater inlet

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

September 18, 2012

Dominion Materials and Metering Servicing Center
Mr. Daniel Moyers
4307 Castlewood Rd.
Richmond, VA 23234

RE: VPDES Inspection- Dominion Materials and Metering Servicing Center- Permit No. VA0087734

Dear Mr. Moyers:

Enclosed is a copy of the inspection report (including technical and laboratory reviews) from the inspection performed at the Dominion Materials and Metering on August 30, 2012. Good housekeeping and attention to stormwater quality were apparent at this facility. Please read the enclosed report for details concerning the inspection. Some general recommendations are noted on page three. No compliance recommendations were noted during the inspection; therefore, no response to this correspondence is required.

I would like to thank you for the time and courtesy extended to us during the inspection. If you have any questions or comments regarding the inspection or if you have any further information to add to the official record, please feel free to contact me at (804) 527-5064 or Meredith Williams at (804) 527-5017.

Sincerely,

Heather Deihls

Heather A. H. Deihls
Environmental Inspector

Enclosure

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
VIRGINIA POLLUTION DISCHARGE ELIMINATION SYSTEM
GENERAL STORMWATER PERMIT INSPECTION REPORT

Revised January 2010

FACILITY NAME:	Dominion Materials & Metering Servicing Center	PERMIT NO.:	VA0087734		
FACILITY ADDRESS:	4307 Castlewood Rd. Richmond, VA 23234				
FACILITY REPRESENTATIVE:	Daniel Moyers	CONTACT INFORMATION:	804-271-2961; daniel.moyers@dom.com		
INDUSTRIAL SECTOR:	Electrical Apparatus and Equipment Wiring Supplies, and Construction Materials	SIC CODE:	5063		
INSPECTORS: Also Present:	Heather Deihls and Meredith Williams Shawn Weimer, DEQ	INSPECTION DATE and TIME on site:	8/30/12 (0920-1055)	UNANNOUNCED? (Y or N)	N
REVIEWER:	MPW 9/11/12 KW 9/12/12			PHOTOS? (Y or N)	Y

I. RECORDS

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	(Y or N)	NOTES
When was the SWPPP last updated?	O&M dated 2/15/11. SWPPP dated August 2011	
Pollution prevention team identified and up-to-date?	Y	
Site location and drainage map?	Y	
Potential pollutant sources including material inventory (includes Section 313 water priority chemicals)?	Y	Electrical equipment, fuel unloading, general refuse storage, Varsol solvent, mineral oil
Information regarding Spills & Leaks?	Y	SPCC is also maintained.
Sampling Data for the previous permit term?	Y	
Non-Storm Water Discharges?	Y	Signed 8/11/11
Best Management Practices (BMP)?	Y	
Good Housekeeping measures?	Y	
Preventative Maintenance?	Y	
Spill Prevention and Response?	Y	
Sediment erosion control and runoff?	Y	
New and continued employee training?	Y	Recent training dates: 3/26/12; 2/18/11; 1/12/10
Is a there a signed certification statement?	Y	Dated 8/11/11

MONITORING	(Y or N)	NOTES
Stormwater quarterly visual examinations present and complete?	Y	Last completed 5/9/12.
Stormwater annual Comprehensive Site Compliance Evaluation present and complete, and have the required Certification Statement?	Y	Last completed 3/30/12.
Routine site inspections conducted at least quarterly?	Y	Reviewed February, April, July, August 2012 onsite.
Are stormwater samples analyzed annually?	Y	Sampling required 1/6 months. WET testing performed annually and submitted as part of annual Stormwater Management Evaluation (last dated 12/16/11).
• Do stormwater event records include all required information?	Y	Storm event data is submitted with DMRs.
• List stormwater sampling parameters.	Flow, pH, TSS, COD, Zinc, Copper, TPH	
• Are stormwater samples collected properly (e.g. storm event, preservation)?	Y	

MONITORING	(Y or N)	NOTES
• Are stormwater DMRs completed and handled according to permit requirements?	Y	Monthly rainfall data is also submitted with DMR, as required by the permit.
• Are the stormwater sampling results in compliance with the benchmark monitoring cutoff concentrations or limits (if applicable)?	Y	Stormwater controls were evaluated and additional limestone gravel was added for pH buffering due to elevated copper and zinc in 2011.
• If sampling benchmark monitoring cutoff concentrations were exceeded were corrective actions (including review/revision of SWPPP) taken and documented?	N/A	
Is TMDL monitoring conducted in accordance with the permit?	N/A	
Chain of Custody: sample date and time, location, collector, required tests?	Y	
Certificate of Analysis: analysis date and time, test methods, analysts name, results	Y	
Name of Contract Lab?	Dominion Laboratory Services, Chesterfield, VA	
Are records maintained for at least three years?	Y	

II. FIELD OBSERVATIONS

SITE CONDITIONS	(Y or N)	NOTES
Describe the industrial activity at this facility.	See page 3.	
Are BMPs maintained in effective operating condition?	Y	
Is there vehicle maintenance on-site?	Y	Conducted under roof.
• Are the associated fluids (oils, fuels, etc) disposed of properly (i.e. not leaking onto the ground or into surface waters)?	Y	Some used motor oil used to heat shop. Oily materials removed by a contractor.
Are chemicals and other materials handled, disposed of, or stored so as to prevent a discharge into surface waters?	Y	
If the stormwater discharge enters a municipal separate storm sewer system to surface waters, has the permittee notified the owner of the system?	Drains on the northeast corner of the property drain to the city storm drain. The facility was not sure if this meant the city MS4 or combined sewer. The facility stated they were going to look into this.	
Does the facility discharge process waters (wastewaters, SW commingled with any wastewaters, etc)?	N	
EFFLUENT DATA	**(Y or N)**	**NOTES**
List number of outfalls onsite:	1; Discharge to Grindall Creek	
Are all outfalls addressed in the registration statement and is each located to provide representative sampling of the discharge?	Y	
Condition of effluent (clear, turbid, floating solids, foam, odor, etc.):	A trickle discharge onto rip-rap was noted. A clear pool of water at the outfall pipe contained minnows and frogs.	
Condition of receiving stream (also note any upstream and downstream differences):	Not viewed.	
Samples collected during inspection:	None.	

COMMENTS:

This facility is the materials and metering service center for Dominion Power, which includes Virginia, North Carolina and West Virginia. Operations on the site include storing, testing, repairing, dismantling and recycling electrical equipment and materials used by the Delivery and Transmission divisions. Equipment handled on site ranges from new and used transmission cable, substation hardware and mobile substations to transformers and used oil in tankers. The Permit allows for the discharge of uncontaminated storm water from the 35 acre site to Grindall Creek.

The paved lot is divided into three general areas: the upper yard (drainage area 1), the lower yard (drainage area 2), and the northeast corner (drainage area 3). The upper yard is surrounded by a raised boundary on all sides so that any rainwater or spillage is directed toward the center of the yard. Drop inlets, present throughout the paved yard, divert storm water through the spill containment area. Equipment containing oil, such as tankers and transformers on pallets are stored in the upper yard. The system warehouse is used for equipment storage. Drains around this warehouse are checked weekly and docks are swept as needed. Mineral oil trucks are also parked in the upper yard. The yard area was very clean. No oil stains or other evidence of recent spills were observed. Spill kits are located strategically around the yard. Spill kits are checked weekly and restocked as needed.

The lower yard (Drainage Area 2) is on a down grade slope toward the creek. Empty oil trucks are parked in the lower yard. Drop inlets in the yard also divert the storm water to the spill containment area. The vehicle maintenance shop, fueling station, oil storage building, PCB shed, empty drums, and hazardous waste accumulation area is located on this portion of the site. Only dry equipment is stored in the lower yard - no oil containing equipment. All of the equipment is also stored on pallets in this yard. There is one stormwater conveyance from Truck Ramp B to the grassy swale located towards the south side of the property. The storm drain at Truck Ramp B is equipped with a plug that is inflated during periods when loading and unloading is occurring. This yard also appeared to be very clean. The inlets are checked routinely after storms and cleaned as needed.

The northeast corner of the yard (drainage area 3) drains to the City of Richmond storm sewer. This area includes the rubber goods area and the laboratory building.

The spill containment area consists of an underground sump located between the upper and lower yards. The sump receives all storm water from the site, and therefore any potential oil spilled. The sump is equipped with sensors that continuously monitor the air for hydrocarbons. When hydrocarbons are detected at a specific level, a valve automatically opens to divert the contents of the sump and all subsequent product and storm water to a 15,000 gallon underground oil containment basin, stopping the discharge. Simultaneously, alarms are signaled locally, at the front gate guard shack and to the security office at the main office in Richmond which is manned 24 hr per day. Alarms are automatically tested weekly and the system is equipped with a back up generator.

Adjacent to the spill containment area is the AST containment building, which holds 22 aboveground storage tanks within secondary containment. Three categories of oil are stored in the ASTs – new mineral oil, waste oil and reclaimable oil. The new oil is used in on-site operations. A disposal contractor takes the waste oil. The sump in this shop drains to the oil containment basin.

Tanker trucks carrying used oil drive into the building and park over a blind sump capable of holding the entire contents of the tanker. The building floor is graded to the sump. The oil is tested for the presence of PCBs and run through an oil/water separator prior to storage. Any oil containing PCBs is drummed and stored in a dedicated storeroom until picked up by the disposal contractor.

At Outfall 001, flow is measured as effluent passes through V-notched weir. The final effluent flow rate is monitored by an ultrasonic transducer. Flow rates are combined and averaged to obtain a monthly flow rate for the outfall.

General Recommendations (Suggestions – No written response required)

1. Continue with plans to determine where stormwater in Area 3 (northeast corner of property) flows. For spill response, it important to know if these drains lead to surface water or the wastewater treatment plant.
2. Mr. Moyer is very conscientious about stormwater pollution prevention and very well spoken about environmental regulations. The site was very clean and appeared to be in very good condition. Good housekeeping practices are clearly a priority to management.
3. Please note, federal code (40CFR Part 136) has changed since the last inspection. Be sure all appropriate pH QA/QC is recorded, as noted on page four of this report.

Compliance Recommendations (Requirements)

None.

ANALYST:	Not reviewed. This information is provided as guidance. Please be sure questions can be answered appropriately.	VPDES NO	VA0087734

Meter:_____ Parameter: Hydrogen Ion (pH)
1/08

Method: Electrometric

METHOD OF ANALYSIS:

	18th Edition of Standard Methods – 4500-H^+ B
	21st or Online Editions of Standard Methods – 4500-H^+ B (00)

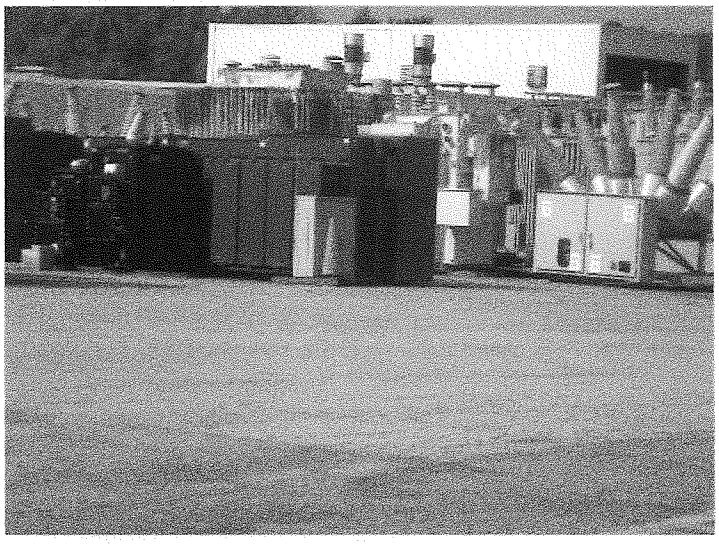
	pH is a method-defined analyte so modifications are not allowed. [40 CFR Part 136.6]	Y	N
1)	Is a certificate of operator competence or initial demonstration of capability available for each analyst/operator performing this analysis? **NOTE**: Analyze 4 samples of known pH. May use external source of buffer (different lot/manufacturer than buffers used to calibrate meter). Recovery for each of the 4 samples must be +/- 0.1 SU of the known concentration of the sample. [SM 1020 B.1]		
2)	Is the electrode in good condition (no chloride precipitate, scratches, deterioration, etc.)? [2.b/c and 5.b]		
3)	Is electrode storage solution in accordance with manufacturer's instructions? [Mfr.]		
4)	Is meter calibrated on at least a daily basis using three buffers all of which are at the same temperature? [4.a] **NOTE**: Follow manufacturer's instructions.		
5)	After calibration, is a buffer analyzed as a check sample to verify that calibration is correct? Agreement should be within +/- 0.1 SU. [4.a]		
6)	Do the buffer solutions appear to be free of contamination or growths? [3.1]		
7)	Are buffer solutions within the listed shelf-life or have they been prepared within the last 4 weeks? [3.a]		
8)	Is the cap or sleeve covering the access hole on the reference electrode removed when measuring pH? [Mfr.]		
9)	For meters with ATC that also have temperature display, is the thermometer verified annually? [SM 2550 B.1]		
10)	Is temperature of buffer solutions and samples recorded when determining pH? [4.a]		
11)	Is sample analyzed within 15 minutes of collections? [40 CFR Part 136]		
12)	Is the electrode rinsed and then blotted dry between reading solutions (Disregard if a portion of the next sample analyzed is used as the rinsing solution.)? [4.a]		
13)	Is the sample stirred gently at a constant speed during measurement? [4.b]		
14)	Does the meter hold a steady reading after reaching equilibrium? [4.b]		
15)	Is a duplicate sample analyzed after every 20 samples if citing 18th or 19th Edition or daily for 20th or 21st Edition? [Part 1020] **NOTE**: Not required for *in situ* samples.	**DEQ no longer requires duplicates to be analyzed.**	
16)	Is the pH of duplicate samples within 0.1SU of the original sample? [Part 1020]		
17)	Is there a written procedure for which result will be reported on DMR (Sample or Duplicate) and is this procedure followed? [DEQ]		

PROBLEMS:

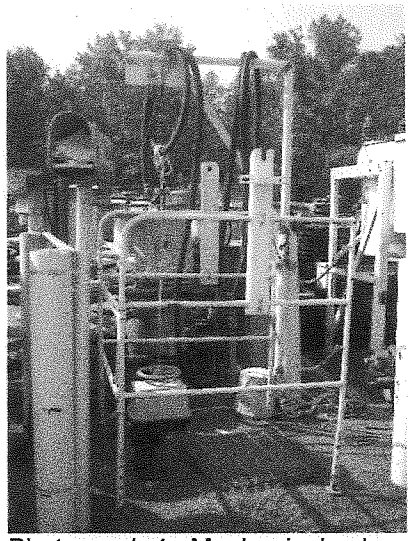
Digital Photographs Taken: 9/7/2012

Photograph 1: Stormwater inlet in Area 3

Photograph 2: Stormwater inlet in Area 3



Photograph 3: Material storage with spill kit (orange cone)



Photograph 4: Mechanical valve and sensors for spill containment area

Photograph 5: Outfall 001

Photograph 6: Spill kits adjacent to Truck Ramp B

Attachment E

Ambient Monitoring and Effluent Data

	Ambient Data						
Station ID	**Collection Date**	**Depth Desc**	**Depth**	**Temp Celcius**	**Field Ph**	**Do Probe**	**Salinity**
2-GOD000.77	8/6/1997	S	0.3	22.91	7.22	8	
2-GOD000.77	10/27/1997	S	0.3	14.6	6.96	8.72	
2-GOD000.77	12/23/1997	S	0.3	8.73	6.94	11.51	
2-GOD000.77	2/18/1998	S	0.3	11.62	6.91	10.55	
2-GOD000.77	4/30/1998	S	0.3	16.63	7.71	11.74	
2-GOD000.77	6/11/1998	S	0.3	19	7.06	8.61	
2-GOD000.77	8/12/1998	S	0.3	25.8	7.09	7.82	
2-GOD000.77	10/14/1998	S	0.3	17.61	7.35	9.84	
2-GOD000.77	12/7/1998	S	0.3	17.88	7.06	9.76	
2-GOD000.77	2/10/1999	S	0.3	10.7	6.62	9.02	
2-GOD000.77	4/1/1999	S	0.3	13.66	7.27	9.53	
2-GOD000.77	6/30/1999	S	0.3	23	6.95	8.04	
2-GOD000.77	8/10/1999	S	0.3	24.17	7.58	9.45	
2-GOD000.77	10/25/1999	S	0.3	11.97	6.97	9.64	0
2-GOD000.77	2/15/2000	S	0.3	9.38	6.78	11.16	
2-GOD000.77	4/11/2000	S	0.3	14.85	6.33	9.7	0
2-GOD000.77	6/13/2000	S	0.3	24.36	7	6.04	0.1
2-GOD000.77	8/1/2000	S	0.3	24.86	6.95	8.05	0
2-GOD000.77	10/5/2000	S	0.3	21.3	7.32	8.94	0
2-GOD000.77	12/20/2000	S	0.3	4.08	7.23	12	0
2-GOD000.77	2/21/2001	S	0.3	11.29	6.96	9.31	0
2-GOD000.77	4/18/2001	S	0.3	11.43	6.92	10.52	0
2-GOD000.77	6/21/2005	S	0.3	18.26	7.19	8.17	0
2-GOD000.77	7/19/2005	S	0.3	28.5		7.41	
2-GOD000.77	8/15/2005	S	0.3	25.66	7.22	8.21	0
2-GOD000.77	8/23/2005	S	0.3	23.45	7.81	7.41	
2-GOD000.77	9/20/2005	S	0.3	26.11	7.74	9.24	
2-GOD000.77	10/13/2005	S	0.3	17.3	6.2	8.16	0
2-GOD000.77	10/18/2005	S	0.3	16.71	7.3		
2-GOD000.77	11/15/2005	S	0.3	17.39	7.33	7.73	
2-GOD000.77	12/13/2005	S	0.3	5.43	7.13	11.85	
2-GOD000.77	12/20/2005	S	0.3	2.99	7.37	13.33	0
2-GOD000.77	1/10/2006	S	0.3	10.42	7	11.65	0
2-GOD000.77	2/8/2006	S	0.3	7.46	7.05	11.89	
2-GOD000.77	2/15/2006	S	0.3	4.87	6.93	12.67	
2-GOD000.77	3/29/2006	S	0.3	12.6	8.8		
2-GOD000.77	4/25/2006	S	0.3	18.1	7	8.5	
2-GOD000.77	4/27/2006	S	0.3	16	7.1	6.5	
2-GOD000.77	5/16/2006	S	0.3	15.8	7	8.6	
2-GOD000.77	6/7/2006	S	0.3	20	7.1	7.9	
2-GOD000.77	7/24/2006	S	0.3	25.2	7	7.9	
2-GOD000.77	8/29/2006	S	0.3	25.3	7.1	6.8	
2-GOD000.77	9/25/2006	S	0.3	20.7	7	7.8	
2-GOD000.77	10/31/2006	S	0.3	14.4	7	9.9	
2-GOD000.77	11/28/2006	S	0.3	9.9	7.1	11.2	
2-GOD000.77	12/6/2006	S	0.3	5.2	6.7	12.7	
2-GOD000.77	1/24/2007	S	0.3	6.6	7.1	12.5	
2-GOD000.77	2/14/2007	S	0.3	4.5	6.5	13.2	
2-GOD000.77	3/19/2007	S	0.3	7.4	7	11.3	
2-GOD000.77	6/4/2007	S	0.3	21.4	6.5	7.9	

Station ID	Collection Date	Depth Desc	Depth	Temp Celcius	Field Ph	Do Probe	Salinity
2-GOD000.77	6/12/2007	S	0.3	22.9	7.2	8.2	
2-GOD000.77	4/15/2009	S	0.3	11.8	7.1	11	
2-GOD000.77	5/26/2009	S	0.3	20.7	7	8.4	
2-GOD000.77	1/20/2011	S	0.3	6.1	7.2	9.6	0
2-GOD000.77	3/9/2011	S	0.3	8.7	7.1	11.9	0
2-GOD000.77	5/5/2011	S	0.3	13.3	7	9.3	0
2-GOD000.77	7/13/2011	S	0.3	25.6	7.4	7	0
2-GOD000.77	9/19/2011	S	0.3	17.8	7.4	7.7	0
2-GOD000.77	11/9/2011	S	0.3	10.4	7.1	10	0
2-GOD000.77	2/8/2012	S	0.3	6.3	7.25	12.76	0
2-GOD000.77	4/10/2012	S	0.3	15.68	7.7	12.5	
2-GOD000.77	6/19/2012	S	0.3	23.53	7.41	7.74	
2-GOD000.77	6/19/2012	S	0.3	23.52	7.41	7.74	
2-GOD000.77	8/22/2012	S	0.3	23.28	7.3	8.38	
2-GOD000.77	10/23/2012	S	0.3	17.07	6.94	8.52	
2-GOD000.77	12/17/2012	S	0.3	10.87	7.32	9.47	
90th Percentile				**25.0**	**7.4**		
10th Percentile				**6.2**	**6.8**		

	Stream Hardness		
Sta Id	**Collection Date Time**	**Depth**	**Value**
2-GOD000.77	08/06/1997 14:30	0.3	39.5
	10/27/1997 10:54	0.3	31.2
	12/23/1997 12:33	0.3	35.3
	02/18/1998 12:50	0.3	43.4
	04/30/1998 14:40	0.3	44.7
	06/11/1998 14:30	0.3	34.7
	08/12/1998 14:35	0.3	34.6
	10/14/1998 12:45	0.3	70
	12/07/1998 14:00	0.3	57
	02/10/1999 12:40	0.3	62
	04/01/1999 12:00	0.3	68
	06/30/1999 14:15	0.3	24.1
	08/10/1999 15:40	0.3	57.1
	12/27/1999 10:00	0.3	59.4
	02/15/2000 13:10	0.3	52
	04/11/2000 11:52	0.3	40
	06/13/2000 12:25	0.3	46.4
	08/01/2000 14:00	0.3	29.1
	10/05/2000 12:50	0.3	57
	12/20/2000 12:05	0.3	49.3
	02/21/2001 14:00	0.3	48
	04/18/2001 13:15	0.3	21.4
	06/21/2005 10:00	0.3	60
	08/15/2005 10:05	0.3	48
	10/13/2005 09:40	0.3	48
	12/20/2005 09:10	0.3	55
	02/15/2006 09:30	0.3	50
	03/29/2006 10:55	0.3	52
Average			**48.87**

Data presented in Application dated April 30, 2015

Pollutant	Unit	Results (Grab - First 20 Minutes)		No. of Samples Taken
		Max	Average	
Oil & Grease	mg/L	<5.0	N/A	1
BOD5	mg/L	5.6	N/A	1
COD	mg/L	109.12	51.0	6
TSS	mg/L	54.8	30.7	7
Total Nitrogen	mg/L	1.57	N/A	1
Total Phosphorus	mg/L	<0.05	N/A	1

Pollutant	Unit	Results (Grab - First 20 Minutes)		No. of Samples Taken
		Max	Average	
Zinc as Zn	mg/L	0.467	0.269	7
Copper as Cu	mg/L	0.047	0.022	7
TPH	mg/L	<0.5	<0.5	6
Fluoride	mg/L	0.066	N/A	1
Nitrate-Nitrite	mg/L	0.67	N/A	1
Sulfate	mg/L	8.78	N/A	1
Aluminum, Total	mg/L	0.478	N/A	1
Barium, Total	mg/L	0.0301	N/A	1
Iron, Total	mg/L	0.803	N/A	1
Magnesium, Total	mg/L	1.26	N/A	1
Manganese, Total	mg/L	0.0482	N/A	1
Titanium, Total	mg/L	<0.0500	N/A	1
Arsenic, Total	mg/L	<0,0100	NIA	1
Cadmium, Total	mg/L	0.0004	N/A	1
Chromium. Total	mg/L	<0.0100	NiA	1
Copper, Total	mg/L	0.0111	N/A	1
Lead, Total;	mg/L	<0.0100	N/A	1
Thallium, Total	mg/L	<0.0500	N/A	1
Zinc, Total	mg/L	0.184	N/A	1
Phenols	mg/L	<0.0213	N/A	1
Benzene	mg/L	<0.005	N/A	1
Toluene	mg/L	<0.005	N/A	1
Ethybenzene	mg/L	<0.00511	N/A	1
Xylene, Total	mg/L	<0.060	N/A	1
PCB, Total	mg/L	<0.0005	N/A	1
Asbestos	MF/L	<1.07	N/A	1
Endosulfan 1	mg/L	<0.0000052	N/A	1
Endosulfan II	mg/L	<0.0000052	N/A	1
Aluminum, Dissolved	mg/L	<0.0500	N/A	1
Arsenic, Dissolved	mg/L	<0.0100	N/A	1
Barium, Dissolved	mg/L	0.0245	N/A	1
Cadmium, Dissolved	mg/L	0.0004	N/A	1
Chromium, Dissolved	mg/L	<0.0100	N/A	1
Copper, Dissolved	mg/L	0.009	N/A	1
Iron, Dissolved	mg/L	0.0822	N/A	1
Magnesium, Dissolved	mg/L	1.08	N/A	1
Manganese, Dissolved	mg/L	0.0355	N/A	1
Lead, Dissolved	mg/L	<0.0100	N/A	1
Titanium, Dissolved	mg/L	<0,0500	N/A	1
Thallium, Dissolved	mg/L	<0,0500	N/A	1
Zinc, Dissolved		0.159	N/A	1

DMR Data November 2010 - January 2015

Outfall Number	Parameter Description	Quant Avg	Quanti Max	Conc Avg	Conc Min	Conc Max	Due Date	Received Date
001	**FLOW**	0.51	0.51	NULL	NULL	NULL	10-Nov-10	5-Nov-10
		0.65	0.65	NULL	NULL	NULL	10-Jul-11	9-Jun-11
		0.11	0.11	NULL	NULL	NULL	10-Jan-12	29-Nov-11
		0.43	0.43	NULL	NULL	NULL	10-Jul-12	7-Jun-12
		0.06	0.06	NULL	NULL	NULL	10-Jan-13	27-Dec-12
		0.48	0.48	NULL	NULL	NULL	10-Jul-13	10-Jun-13
		0.15	0.15	NULL	NULL	NULL	10-Jan-14	23-Dec-13
		0.05	0.05	NULL	NULL	NULL	10-Jul-14	20-Jun-14
		0.29	0.29	NULL	NULL	NULL	10-Jan-15	2-Jan-15
	pH	NULL	NULL	NULL	6.6	6.6	10-Nov-10	5-Nov-10
		NULL	NULL	NULL	6.0	6.0	10-Jul-11	9-Jun-11
		NULL	NULL	NULL	6.21	6.21	10-Jan-12	29-Nov-11
		NULL	NULL	NULL	6.3	6.3	10-Jul-12	7-Jun-12
		NULL	NULL	NULL	7.04	7.04	10-Jan-13	27-Dec-12
		NULL	NULL	NULL	6.1	6.1	10-Jul-13	10-Jun-13
		NULL	NULL	NULL	6.7	6.7	10-Jan-14	23-Dec-13
		NULL	NULL	NULL	6.8	6.8	10-Jul-14	20-Jun-14
		NULL	NULL	NULL	6.8	6.8	10-Jan-15	2-Jan-15
			from 2015 application		6.1	7.0		
				90th %		**7.00**		
				10th %		**6.09**		
	TSS	NULL	NULL	NULL	NULL	17.3	10-Jul-11	9-Jun-11
		NULL	NULL	NULL	NULL	6.8	10-Jan-12	29-Nov-11
		NULL	NULL	NULL	NULL	16	10-Jul-12	7-Jun-12
		NULL	NULL	NULL	NULL	53.4	10-Jan-13	27-Dec-12
		NULL	NULL	NULL	NULL	27.8	10-Jul-13	10-Jun-13
		NULL	NULL	NULL	NULL	6.5	10-Jan-14	23-Dec-13
		NULL	NULL	NULL	NULL	54.8	10-Jul-14	20-Jun-14
		NULL	NULL	NULL	NULL	42.4	10-Jan-15	2-Jan-15
	COD	NULL	NULL	NULL	NULL	59.36	10-Jul-11	9-Jun-11
		NULL	NULL	NULL	NULL	31.6	10-Jan-12	29-Nov-11
		NULL	NULL	NULL	NULL	44.92	10-Jul-12	7-Jun-12
		NULL	NULL	NULL	NULL	79.95	10-Jan-13	27-Dec-12
		NULL	NULL	NULL	NULL	34.52	10-Jul-13	10-Jun-13
		NULL	NULL	NULL	NULL	18.85	10-Jan-14	23-Dec-13
		NULL	NULL	NULL	NULL	109.12	10-Jul-14	20-Jun-14
		NULL	NULL	NULL	NULL	18.7	10-Jan-15	2-Jan-15

ZINC, TOTAL RECOVERABLE	NULL	NULL	NULL	NULL	188	10-Jul-11	9-Jun-11
	NULL	NULL	NULL	NULL	151	10-Jan-12	29-Nov-11
	NULL	NULL	NULL	NULL	217	10-Jul-12	7-Jun-12
	NULL	NULL	NULL	NULL	467	10-Jan-13	27-Dec-12
	NULL	NULL	NULL	NULL	321	10-Jul-13	10-Jun-13
	NULL	NULL	NULL	NULL	146	10-Jan-14	23-Dec-13
	NULL	NULL	NULL	NULL	304	10-Jul-14	20-Jun-14
	NULL	NULL	NULL	NULL	247	10-Jan-15	2-Jan-15
COPPER, TOTAL RECOVERABLE	NULL	NULL	NULL	NULL	15	10-Jul-11	9-Jun-11
	NULL	NULL	NULL	NULL	7	10-Jan-12	29-Nov-11
	NULL	NULL	NULL	NULL	14	10-Jul-12	7-Jun-12
	NULL	NULL	NULL	NULL	39	10-Jan-13	27-Dec-12
	NULL	NULL	NULL	NULL	21	10-Jul-13	10-Jun-13
	NULL	NULL	NULL	NULL	6	10-Jan-14	23-Dec-13
	NULL	NULL	NULL	NULL	47	10-Jul-14	20-Jun-14
	NULL	NULL	NULL	NULL	18	10-Jan-15	2-Jan-15
PETROLEUM HYDROCARBONS, TOTAL RECOVERABLE	NULL	NULL	<QL	NULL	<QL	10-Jul-11	9-Jun-11
	NULL	NULL	<QL	NULL	<QL	10-Jan-12	29-Nov-11
	NULL	NULL	<QL	NULL	<QL	10-Jul-12	7-Jun-12
	NULL	NULL	<QL	NULL	<QL	10-Jan-13	27-Dec-12
	NULL	NULL	<QL	NULL	<QL	10-Jul-13	10-Jun-13
	NULL	NULL	<QL	NULL	<QL	10-Jan-14	23-Dec-13
	NULL	NULL	0.5	NULL	0.5	10-Jul-14	20-Jun-14
	NULL	NULL	0.6	NULL	0.6	10-Jan-15	2-Jan-15

Hardness from WET Test Reports

Feb. 2015	68
Feb. 2014	26
Feb. 2013	48
Feb. 2012	34
Feb. 2011	40
Mean	**43.2**

Attachment F

MSTRANTI Data Source and Spreadsheet

ATTACHMENT F

MSTRANTI DATA SOURCE – OUTFALL 001

		Outfall 001
Stream Information	Mean Hardness	From Ambient Data (Station 2-GOD000.77) provided by Jennifer Palmore, Senior Planner, on May 22, 2015 (see Attachment E).
	90% Temperature	
	90% Maximum pH	
	10% Maximum pH	
	Tier Designation	From Flow Frequency Memo provided by Jennifer Palmore, Senior Planner, on May 22, 2015 (see Attachment B).
Stream Flow	All Data	1Q10 set equal to 1MGD as is procedure for calculating 2 X WLAa in conjunction with discharge flow.
Mixing Information	All Data	Mixing set as 100% as is procedure for calculating 2 X WLAa in conjunction with discharge flow.
Effluent Information	Mean Hardness	Mean Hardness data from WET Test Reports from 2011 to 2015.
	90% Temperature	Temperature and pH data are used in the calculation of ammonia waste load allocations. Since ammonia is not a parameter of concern in the list of stormwater benchmarks, then the data does not need to be entered in MSTRANTI.
	90% Maximum pH	
	10% Maximum pH	
Discharge Flow		Equal to 1 MGD in order to calculate 2xWLAa in conjunction with 1Q10.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Dominion Materials & Metering Services Center Permit No.: VA0087734

Receiving Stream: Grindall Creek Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information			Stream Flows			Mixing Information			Effluent Information		
Mean Hardness (as CaCO3) =	48.9	mg/L	1Q10 (Annual) =	1	MGD	Annual - 1Q10 Mix =	100	%	Mean Hardness (as CaCO3) =	43.2	mg/L
90% Temperature (Annual) =	25	deg C	7Q10 (Annual) =		MGD	- 7Q10 Mix =		%	90% Temp (Annual) =		deg C
90% Temperature (Wet season) =		deg C	30Q10 (Annual) =		MGD	- 30Q10 Mix =		%	90% Temp (Wet season) =		deg C
90% Maximum pH =	7.4	SU	1Q10 (Wet season) =		MGD	Wet Season - 1Q10 Mix =		%	90% Maximum pH =		SU
10% Maximum pH =	6.8	SU	30Q10 (Wet season) =		MGD	- 30Q10 Mix =		%	10% Maximum pH =		SU
Tier Designation (1 or 2) =	1		30Q5 =		MGD				Discharge Flow =	1	MGD
Public Water Supply (PWS) Y/N? =	n		Harmonic Mean =		MGD						
Trout Present Y/N? =	n										
Early Life Stages Present Y/N? =	Y										

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.9E+02**
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.3E+00**
Acrylonitrile[C]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.5E+00**
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	6.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	**6.0E+00**	**--**	**na**	**5.0E-04**
Ammonia-N (mg/l) (Yearly)	0	5.84E+01	7.09E+00	na	--	1.17E+02	7.09E+00	na	--	--	--	--	--	--	--	--	--	**1.17E+02**	**7.09E+00**	**na**	**--**
Ammonia-N (mg/l) (High Flow)	0	5.84E+01	7.09E+00	na	--	5.84E+01	7.09E+00	na	--	--	--	--	--	--	--	--	--	**5.84E+01**	**7.09E+00**	**na**	**--**
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+04**
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.4E+02**
Arsenic	0	3.4E+02	1.5E+02	na	--	6.8E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	**6.8E+02**	**1.5E+02**	**na**	**--**
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E+02**
Benzidine[C]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.0E-03**
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+00**
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.5E+04**
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.2E+01**
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.4E+03**
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.9E+03**
Cadmium	0	1.6E+00	5.9E-01	na	--	3.3E+00	5.9E-01	na	--	--	--	--	--	--	--	--	--	**3.3E+00**	**5.9E-01**	**na**	**--**
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+01**
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	4.8E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	**4.8E+00**	**4.3E-03**	**na**	**8.1E-03**
Chloride	0	8.6E+05	2.3E+05	na	--	1.7E+06	2.3E+05	na	--	--	--	--	--	--	--	--	--	**1.7E+06**	**2.3E+05**	**na**	**--**
TRC	0	1.9E+01	1.1E+01	na	--	3.8E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	**3.8E+01**	**1.1E+01**	**na**	**--**
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+03**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Chlorodibromomethane [C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.3E+02**
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+04**
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+03**
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+02**
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	1.7E-01	4.1E-02	na	--	--	--	--	--	--	--	--	--	**1.7E-01**	**4.1E-02**	**na**	**--**
Chromium III	0	3.0E+02	3.7E+01	na	--	6.0E+02	3.7E+01	na	--	--	--	--	--	--	--	--	--	**6.0E+02**	**3.7E+01**	**na**	**--**
Chromium VI	0	1.6E+01	1.1E+01	na	--	3.2E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	**3.2E+01**	**1.1E+01**	**na**	**--**
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Chrysene [C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-02**
Copper	0	6.5E+00	4.4E+00	na	--	1.3E+01	4.4E+00	na	--	--	--	--	--	--	--	--	--	**1.3E+01**	**4.4E+00**	**na**	**--**
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	4.4E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	**4.4E+01**	**5.2E+00**	**na**	**1.6E+04**
DDD [C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.1E-03**
DDE [C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.2E-03**
DDT [C]	0	1.1E+00	1.0E-03	na	2.2E-03	2.2E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	**2.2E+00**	**1.0E-03**	**na**	**2.2E-03**
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-01**	**na**	**--**
Diazinon	0	1.7E-01	1.7E-01	na	--	3.4E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	**3.4E-01**	**1.7E-01**	**na**	**--**
Dibenz(a,h)anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.3E+03**
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.6E+02**
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.9E+02**
3,3-Dichlorobenzidine [C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.8E-01**
Dichlorobromomethane [C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.7E+02**
1,2-Dichloroethane [C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.7E+02**
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.1E+03**
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.0E+04**
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.9E+02**
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,2-Dichloropropane [C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+02**
1,3-Dichloropropene [C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.1E+02**
Dieldrin [C]	0	2.4E-01	5.6E-02	na	5.4E-04	4.8E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	**4.8E-01**	**5.6E-02**	**na**	**5.4E-04**
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.4E+04**
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.5E+02**
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+06**
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.5E+03**
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+03**
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.8E+02**
2,4-Dinitrotoluene [C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.4E+01**
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E-08**
1,2-Diphenylhydrazine [C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.0E+00**
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.4E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	**4.4E-01**	**5.6E-02**	**na**	**8.9E+01**
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	4.4E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	**4.4E-01**	**5.6E-02**	**na**	**8.9E+01**
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	4.4E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	**4.4E-01**	**5.6E-02**	**--**	**--**
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.9E+01**
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	1.7E-01	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	**1.7E-01**	**3.6E-02**	**na**	**6.0E-02**
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E-01**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.1E+03**
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.4E+02**
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.3E+03**
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-02**	**na**	**--**
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	1.0E+00	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	**1.0E+00**	**3.8E-03**	**na**	**7.9E-04**
Heptachlor Epoxide[C]	0	5.2E-01	3.8E-03	na	3.9E-04	1.0E+00	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	**1.0E+00**	**3.8E-03**	**na**	**3.9E-04**
Hexachlorobenzene[C]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.9E-03**
Hexachlorobutadiene[C]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E+02**
Hexachlorocyclohexane Alpha-BHC[C]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.9E-02**
Hexachlorocyclohexane Beta-BHC[C]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.7E-01**
Hexachlorocyclohexane Gamma-BHC[C] (Lindane)	0	9.5E-01	na	na	1.8E+00	1.9E+00	--	na	1.8E+00	--	--	--	--	--	--	--	--	**1.9E+00**	**--**	**na**	**1.8E+00**
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.1E+03**
Hexachloroethane[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+01**
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**2.0E+00**	**na**	**--**
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.8E-01**
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Isophorone[C]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**9.6E+03**
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**0.0E+00**	**na**	**--**
Lead	0	4.4E+01	4.6E+00	na	--	8.9E+01	4.6E+00	na	--	--	--	--	--	--	--	--	--	**8.9E+01**	**4.6E+00**	**na**	**--**
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	**--**	**1.0E-01**	**na**	**--**
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Mercury	0	1.4E+00	7.7E-01	- -	- -	2.8E+00	7.7E-01	- -	- -	--	--	--	--	--	--	--	--	**2.8E+00**	**7.7E-01**	**- -**	**- -**
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.5E+03**
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.9E+03**
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	**--**	**3.0E-02**	**na**	**--**
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	**--**	**0.0E+00**	**na**	**--**
Nickel	0	9.5E+01	1.0E+01	na	4.6E+03	1.9E+02	1.0E+01	na	4.6E+03	--	--	--	--	--	--	--	--	**1.9E+02**	**1.0E+01**	**na**	**4.6E+03**
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.9E+02**
N-Nitrosodimethylamine[C]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E+01**
N-Nitrosodiphenylamine[C]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.0E+01**
N-Nitrosodi-n-propylamine[C]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**5.1E+00**
Nonylphenol	0	2.8E+01	6.6E+00	--	--	5.6E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	**5.6E+01**	**6.6E+00**	**na**	**--**
Parathion	0	6.5E-02	1.3E-02	na	--	1.3E-01	1.3E-02	na	--	--	--	--	--	--	--	--	--	**1.3E-01**	**1.3E-02**	**na**	**--**
PCB Total[C]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	**--**	**1.4E-02**	**na**	**6.4E-04**
Pentachlorophenol [C]	0	1.0E-02	5.9E-03	na	3.0E+01	2.1E-02	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	**2.1E-02**	**5.9E-03**	**na**	**3.0E+01**
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**8.6E+05**
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+03**
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				**Most Limiting Allocations**			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	**Acute**	**Chronic**	**HH (PWS)**	**HH**
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	4.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	**4.0E+01**	**5.0E+00**	**na**	**4.2E+03**
Silver	0	9.1E-01	--	na	--	1.8E+00	--	na	--	--	--	--	--	--	--	--	--	**1.8E+00**	**--**	**na**	**--**
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.0E+01**
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.3E+01**
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**4.7E-01**
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**6.0E+03**
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	1.5E+00	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	**1.5E+00**	**2.0E-04**	**na**	**2.8E-03**
Tributyltin	0	4.6E-01	7.2E-02	na	--	9.2E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	**9.2E-01**	**7.2E-02**	**na**	**--**
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**7.0E+01**
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**1.6E+02**
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**3.0E+02**
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**--**
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	**--**	**--**	**na**	**2.4E+01**
Zinc	0	6.1E+01	5.8E+01	na	2.6E+04	1.2E+02	5.8E+01	na	2.6E+04	--	--	--	--	--	--	--	--	**1.2E+02**	**5.8E+01**	**na**	**2.6E+04**

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	3.5E-01
Chromium III	2.2E+01
Chromium VI	6.6E+00
Copper	2.6E+00
Iron	na
Lead	2.8E+00
Manganese	na
Mercury	4.6E-01
Nickel	6.0E+00
Selenium	3.0E+00
Silver	7.3E-01
Zinc	3.5E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

Attachment G

WET Tests Results

Dominion Materials And Metering Services Center **VPDES Permit No. VA0087734**

Test Date	Test Results				% Survival in 100% effluent		Est. Volume of Stormwater (MG)	Approx. Duration of Event (hours)
	LC50% P. promelas	LC50% C. dubia	TUa P. promelas	TUa C. dubia	P. promelas	C. dubia		
6/1/2015	**68.3**	100	**1.46**	1.00	0	50	NA	NA
5/5/2014	> 100	> 100	<1.00	<1.00	99	100	0.05	3
5/6/2013	> 100	> 100	<1.00	<1.00	100	100	0.48	12
5/9/2012	**57.4**	100	**1.74**	1.00	0	50	0.43	10
5/4/2011	**77.7**	100	**1.29**	1.00	50	30	0.65	9
4/6/2010	NA	93.9	NA	1.06	NA	45	0.11	18

Concentrations from Outfall 001

	4/6/2010	11/15/2010	5/4/2011	10/19/2011	5/9/2012	11/27/2012	5/6/2013	11/16/2013	5/5/2014	12/16/2014	6/1/2015	Screening Criteria
Copper, total (ug/L)	10	**15**	**15**	7	**14**	**39**	**21**	6	**47**	**18**	**17**	**13**
Copper, dissolved (ug/L)	10	<5.0	8	7	**12**	**13**	**13**	<5.0	**35**	5	NA	
Zinc, total (ug/L)	**179**	**333**	**188**	**151**	**217**	**467**	**321**	**146**	**304**	**247**	**182**	**120**
Zinc, dissolved (ug/L)	**155**	**162**	92	**132**	**178**	**227**	**264**	92	**174**	**126**	NA	

Attachment H

NPDES Industrial Permit Rating Worksheet

NPDES PERMIT RATING WORK SHEET

☐ Regular Addition
☐ DiscretionaryAddition
☐ Score change, but no status change
☐ Deletion

NPDES NO. VA0087734

Facility Name: Dominion Materials and Metering Services Center

City: Richmond, Va.

Receiving Water: Grindall Creek

Reach Number: _____

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?
1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate
☐ YES; score is 600 (stop here) ■ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES; score is 700 (stop here)
■ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 5063
Primary SIC Code: 5063 Other SIC Codes: none
Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group		Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
■ No process waste streams		0	0	☐ 3.	3	15	☐ 7.	7	35
☐ 1.no electroplating	x	1	5	☐ 4.	4	20	☐ 8.	8	40
☐ 2.		2	10	☐ 5.	5	25	☐ x 9.	9	45
				☐ 6.	6	30	☐ 10.	10	50

Code Number Checked: __0___

Total Points Factor 1: __0___

FACTOR 2: Flow/Stream Flow Volume (*Complete either Section A or Section B; check only one)*

Section A ☐ Wastewater Flow Only Considered

Wastewater Type (See Instructions)		Code	Points
Type I: Flow < 5 MGD	☐	11	0
Flow 5 to 10 MGD	☐	12	10
Flow > 10 to 50 MGD	☐	13	20
Flow > 50 MGD	☐	14	30
Type II: Flow < 1 MGD	☐	21	10
Flow 1 to 5 MGD	☐	22	20
Flow > 5 to 10 MGD	☐	23	30
Flow > 10 MGD	☐	24	50
Type III: Flow < 1 MGD	■	31	0
Flow 1 to 5 MGD	☐	32	10
Flow > 5 to 10 MGD	☐	33	20
Flow > 10 MGD	☐	34	30

Section B ☐ Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	☐	41	0
	10 % to < 50 %	☐	42	10
	> 50 %	☐	43	20
Type II:	< 10 %	☐	51	0
	10 % to <50 %	☐	52	20
	> 50 %	☐	53	30

Code Checked from Section A or B: __31___
Total Points Factor 2: __0___

SECTION IN – INDUSTRIAL

FACTOR 3: Conventional Pollutants NONE – Monitoring only NPDES NO: VA0071528
(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) ☐ BOD ☐ COD ☐ Other:_____
N/A No Limitations

			Code	*Points*
Permit Limits: (check one)	☐	< 100 lbs/day	1	0
	☐	100 to 1000 lbs/day	2	5
	☐	> 1000 to 3000 lbs/day	3	15
	☐	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored: __0___

B. Total Suspended Solids (TSS)
N/A No Limitations

			Code	*Points*
Permit Limits: (check one)	☐	< 100 lbs/day	1	0
	☐	100 to 1000 lbs/day	2	5
	☐	> 1000 to 5000 lbs/day	3	15
	☐	> 5000 lbs/day	4	20

Code Checked: _____

Points Scored: __0___

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other: _____
N/A No Limitations

		Nitrogen Equivalent	*Code*	*Points*
Permit Limits: (check one)	☐	< 300 lbs/day	1	0
	☐	300 to 1000 lbs/day	2	5
	☐	> 1000 to 3000 lbs/day	3	15
	☐	> 3000 lbs/day	4	20

Code Checked: _____

Points Scored: __0___

Total Points Factor 3: __0___

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

■ YES (If yes, check toxicity potential number below)

☐ NO (If no, go to Factor 5)

Determine the *human health* toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column ☐ check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
■ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: __0___

Total Points Factor 4: __0___

SECTION IN – INDUSTRIAL

FACTOR 5: Water Quality Factors NPDES NO.

A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge:

		Code	Points
■	Yes	1	10
□	No	2	0

B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
■	Yes	1	0
□	No	2	5

C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
■	Yes	1	10
□	No	2	0

Code Number Checked: A 1 B 1 C 1

Points Factor 5: A 10 + B 0 + C 10 = 20 TOTAL

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from Factor 2): 31 *Enter the multiplication factor that corresponds to the flow code:* 0,00

Check appropriate facility HPRI Code (from PCS):

	HPRI#	*Code*	*HPRI Score*
□	1	1	20
□	2	2	0
■	3	3	30
□	4	4	0
□	5	5	20

HPRI code checked: 3

Flow Code	*Multiplication Factor*
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

Base Score: (HPRI Score) 30 X (Multiplication Factor) 0.00 = 0 (TOTAL POINTS)

B. Additional Points □ NEP Program
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
■ Yes	1	10
□ No	2	0

C. Additional Points □ Great Lakes Area of Concern
For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see Instructions)

	Code	Points
□ Yes	1	10
■ No	2	0

Code Number Checked: A 3 B 1 C 2

Points Factor 6: A 0 + B 10 + C 0 = 10 TOTAL

SECTION IN – INDUSTRIAL

SCORE SUMMARY NPDES NO. VA0087734

Factor	Description	Total Points
1	Toxic Pollutant Potential	0
2	Flows/Streamflow Volume	0
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	20
6	Proximity to Near Coastal Waters	10
	TOTAL (Factors 1 through 6)	30

S1. Is the total score equal to or greater than 80? ☐ Yes (Facility is a major) ■ No

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

■ No

☐ Yes (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 30

OLD SCORE: 31.5

Laura Galli
Permit Reviewer's Name

(804) 527-5095
Phone Number

June 2, 2015
Date

Attachment I

Testing Waiver Request and Approval

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 Fax (804) 527-5106
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

January 13, 2015

Ms. Cathy C. Taylor
Director, Electric Environmental Services
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, VA 23060

Re: Dominion Materials & Metering Sampling Plan Waiver Request
VPDES Permit No. VA0087734

Dear Ms. Taylor,

The Department of Environmental Quality (Department) has received the Dominion – Materials & Metering Service Center Sampling Plan and Requested Waivers dated December 4, 2014. In this document, the permittee has requested a waiver from the flow weighted composite sampling required for the effluent testing at Outfall 001 and asked that grab samples be accepted to satisfy the VPDES permit application requirements. In addition, the permittee has requested a waiver for testing of TRC, fecals, sulfite and dioxin of EPA form 2F.

The Department agrees that grab samples collected during the first thirty minutes (or as soon thereafter as practicable) of the discharge is acceptable as representative samples for the purpose of satisfying the permit application requirements in Form 2F. In addition, because of the absence of the above mentioned parameters in the industrial activities of the plant, the Department hereby approves the parameters testing waiver.

If you have any questions or comments on this letter, please contact me at (804) 527-5095 or laura.galli@deq.virginia.gov.

Sincerely,

Laura Galli
VPDES Permit Writer

DEPARTMENT OF ENVIRONMENTAL QUALITY
Piedmont Regional Office

4949-A Cox Road, Glen Allen, VA 23060-6296 **804/527-5020**

MEMORANDUM

To: Emilee C. Adamson, VPDES Permit Manager
Piedmont Regional Office

From: Laura Galli, VPDES Permit Writer
Piedmont Regional Office

Subject: VPDES Permit No. VA0087734 – Dominion Materials and Metering Service Center

Date: January 6, 2015

Dominion Resources is requesting a waiver from the flow weighted composite sampling required for the effluent testing at Outfall 001 and asks that grab samples be accepted to satisfy the VPDES permit application requirements. The Facility is also requesting a waiver for testing of TRC, fecals, sulfite and dioxin.

Reasons:
The general instructions for EPA Form 2F - Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity requires that a grab sample and a flow weighted example be collected and analyzed for all parameters, unless explicitly listed. The permittee believes that the grab samples will represent a worst-case pollutant loading which will allow for a conservative evaluation of the storm water discharge. The permittee is also requesting a waiver for the sampling and testing of TRC, fecals, sulfite and dioxin stating that there are no industrial activities that contribute to the these parameters and they are believed to be absent from the stormwater discharge. No changes have occurred at the facility since the last permit issuance.

I recommend that grab samples collected during the first thirty minutes (or as soon thereafter as practicable) of the discharge be accepted as representative samples for the purpose of satisfying the permit application requirements in Form 2F. In addition, because of the absence of the above mentioned parameters in the industrial activities of the plant, I recommend the parameters testing waiver to be approved. These same requests were submitted and approved for the 2010 Permit reissuance.

☒ Approved ☐ Denied

Comments: Approved for this reissuance only.

Emilee C. Adamson January 13, 2015

Emilee C. Adamson Date
VPDES Permit Manager

Dominion Generation
5000 Dominion Boulevard, Glen Allen, VA 23060

December 4, 2014

Ms. Laura Galli
DEQ – Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

RE: Dominion – Materials & Metering Service Center – Proposal Sampling Plan and Requested Waivers - VPDES Permit No. VA0087734

Dear Ms. Galli:

Dominion is preparing the VPDES application for reissuance of the Materials & Metering Service Center's (Castlewood Road Facility) VPDES permit VA0087734. As discussed during the meeting held on November 25, 2014 between yourself and Dominion's Rick Woolard, the attached Table 1 summarizes Dominion's sampling strategy for generating the VPDES Form 2F effluent data. Dominion is requesting your review and approval of the proposed sampling plan and testing waiver requests as summarized in the attached Table 1. Should you require additional information, please contact Rick Woolard at (804) 273-2991 / rick.woolard@dom.com or Dan Moyers at (804) 271-2961 / daniel.moyers@dom.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

Dominion Materials & Metering Service Center Permit VA0087734
Proposed Sampling Plan and Requested Waivers

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
001 – Stormwater	2F – Part VII-A	Flow, pH, TSS, COD, TPH Remaining Part VII-A Parameters (Total N, O&G, TP, BOD)	Past 3 years' DMRs Field sampling – Grab	 Waive 24-hr composite sample and qualifying storm triggers
	2F – Part VII-B	Stormwater from 001 is not considered process wastewater, therefore no Part B parameters will be sampled	NA	NA
	2F – Part VII-C	Tables 2F-2, 2F-3 and 2F-4 if believed present Parameters to be sampled will be consistent with the prior permit application	Field sampling – Grab	Waive 24-hr composite sample and qualifying storm triggers. Waive testing of TRC, fecals, sulfite and Dioxin as no industrial activities contribute to these parameters and/or they are believed absent

Attachment J

VDH Coordination Response

COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

John J. Aulbach II, PE
Director, Office of Drinking Water

DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
Culpeper Field Office

400 S. Main Street, 2nd Floor
Culpeper, VA 22701
Phone: 540-829-7340
Fax: 540-829-7337

DATE: June 2, 2015

FROM: Hugh J. Eggborn, PE, Engineering Field Director
Office of Drinking Water, Culpeper Field Office

TO: Laura Galli, VPDES Permit Writer
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

CITY/COUNTY:	Chesterfield County
APPLICANT:	Dominion Virginia Power
PERMIT TYPE:	VPDES
APPLICATION TYPE:	Re-Issuance (Existing)
PROJECT:	Materials & Metering Service Center
ODW REVIEWER:	Randall Morrissette, PE, East Central Support Office
SUBJECT:	Review response for DEQ's permit application #VA0087734

Our office has reviewed the application for discharges of stormwater runoff from the Materials & Metering Service Center into Grindall Creek. The facility is located at 4307 Castlewood Road in Chesterfield County.

The nearest downstream raw water intake is located approximately 28.5 miles from the facility. The name of the waterworks is Appomattox River Water Authority and operates under PWSID No. 4041035.

cc: VDH, ODW – Central Office
VDH, Chesterfield County Health Department, attn.: Environmental Health Manager
Ms. Cathy C. Taylor, Dominion Resource Services, Inc.

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